REMARKS

Claims 1-14 are pending in this application. Claims 1 and 6 are rejected under 35 USC 102(b) as being anticipated by Orschek. Claims 10-12 and 14 are rejected under 35 USC 103(a) as being unpatentable over Orschek. Claims 2-5 and 7-9 are rejected under 35 USC 103(a) as being unpatentable over Orschek in view of Hosaka. Claim 13 is rejected under 35 USC 103(a) as being unpatentable over Orschek in view of Hosaka and further in view of Hoover.

The rejection of claim 1 is moot because claim 1 has been cancelled herein.

The rejection of claim 6 under 35 USC 102(b) as being anticipated by Orschek is traversed as follows. As stated in MPEP 2131, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference." Claim 6 includes the limitation of "detecting an alarm condition when a preparation is made to energize a drive motor coincident with a hand brake being engaged." The cited Orschek patent does not detect an alarm condition until the drive motor is actually energized, as described in column 5, lines 35-42. The drive motor controls of a locomotive include a reverser having neutral, forward and reverse positions, and a throttle having selectable power levels (notch levels) typically ranging from zero to eight. Moving the reverser to a non-neutral position is a preparation for requesting power. Moving the throttle to a non-zero position actually provides power to the drive motors. Column 5, lines 58-59 of Orschek states that "The alarm is activated based on the occurrence of a transition from idle to a power state." Thus, Orschek detects the actual application of power, whereas the limitation of claim 6 is directed to detecting when a preparation is made to energize the motor. The difference is significant because the invention of claim 6 allows the alarm indication to be made earlier in time than is possible with the system of Orschek. In particular, the invention of claim 6 allows the alarm indication to be provided before the rail vehicle is moved with the hand brake engaged. Claim 6 has been amended herein to clarify this difference. The system of Orschek further delays the sounding of the alarm until the locomotive speed is above a threshold, such as 10 miles per hour. The invention of claim 6 provides improved protection against any damage to the brake, wheel or rail. Thus, Orschek fails to describe each of the limitations of claim 6 and the 35 USC 102(a) rejection should be withdrawn.

The Examiner has failed to provide *prima facie* support for the rejection of claims 10-12 and 14 under 35 USC 103(a) as being unpatentable over Orschek. Independent claim 10 and its dependent claims 11-13 include the limitations of "the mechanism defining a load path for supporting a weight of the drive chain bypassing the switch." Independent claim 14 includes the limitations of " a mechanism connecting the switch and the drive chain without supporting a weight of the drive chain through the switch." The Examiner admits that Orschek does not mention a load path for supporting the weight of the drive chain. The Examiner provides no basis for why these limitations are made obvious by the teaching of Orschek. The Examiner discusses the rejection of claim 10 in the paragraph beginning at the middle of page 4 of the Office Communication. However, that paragraph contains so many grammatical errors that it is unclear, and it offers no explanation of where the Examiner finds a teaching or suggestion in Orschek of how the weight of a brake chain is supported. Similarly, the Examiner discusses the rejection of claims 11-12 in the paragraph at the top of page 5 of the Office Communication. However, that paragraph also contains many grammatical errors and it offers no explanation of where in Orschek the Examiner is fining support for the rejection. The Examiner fails to even discuss the rejection of claim 14 in this regard.

The Orschek patent is directed to a passenger locomotive as illustrated in FIG. 1 of Orschek. Such locomotives use a braking system known in the industry as "tread brakes". In such braking systems both the parking brake 60 and the air brake 64 are integrated into a single unit 74, and they act independently to drive a single brake shoe 62 at each wheel. The parking brake is spring loaded against the wheel and is released by compressed air. There is no separate hand brake and brake chain for these locomotives. Because the braking system of Orschek does not even include a brake chain, it is impossible for Orschek to provide *prima facie* support for the rejection of claims 10-12 and 14 under 35 USC 103(a), and the rejection is defective and should be withdrawn.

The rejection of claim 2 is moot because claim 2 has been cancelled herein.

The Examiner has failed to provide *prima facie* support for the rejection of claims 3-5 and 7-9 under 35 USC 103(a) as being unpatentable over Orschek in view of Hosaka. As stated in MPEP 2143.01, "the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the

desirability of the combination." Hosaka describes a throttle control system that is useful for limiting wheel slip in an automobile. However, Hosaka does not teach or suggest anything about a brake alarm, nor does Hosaka suggest that a wheel slip system may be used with a brake alarm system. Thus, there is no basis in the art for suggesting the desirability of combining these references. Thus, the rejection of claims 3-5 and 7-9 under 35 USC 103(a) is defective and should be withdrawn because it lacks *prima facie* obviousness support.

Assuming, for purposes of argument only that one does combine Orschek and Hosaka, the resulting combination does not produce the invention of claims 3-5 and 7-9. Each of these claims includes limitations directed to energizing/activating a wheel slip indicator and a general alarm indicator to provide an indication of a brake alarm condition. Specifically, claim 3 includes the limitation of "a logic device ...having outputs connected to energize both the wheel slip indicator and the general alarm indicator...". Claim 4 includes the limitation of "a logic device ... adapted to actuate the general alarm circuit and the wheel slip alarm circuit....". Claim 5 includes the limitation of "a circuit energizing both the general alarm circuit and the wheel slip alarm circuit...". Claims 7 and 8 include the limitation of "providing the alarm indication as a wheel slip indication coincident with a general alarm indication." Claim 9 includes the limitation of "simultaneously activating a multiunit communication line wheel slip alarm circuit and a multiunit communication line general alarm circuit...". The combination of Orschek and Hosaka fails to describe or to suggest these combinations of limitations. Neither Orschek nor Hosaka make any suggestion of activating both a wheel slip alarm and a general alarm. Orschek generally describes the brake alarm indication without any reference to the general or wheel slip alarms. Hosaka does not even discuss brake alarms, nor is it possible for Hosaka to suggest this new use for a general alarm because a general alarm does not even exist in the automotive application of Hosaka. Accordingly, in addition to lacking *prima facie* support, the rejection of claims 3-5 and 7-9 under 35 USC 103(a) should be withdrawn as being lacking in its combined teaching.

The applicants traverse the rejection of claim 13 under 35 USC 103(a) as being unpatentable over Orschek in view of Hosaka and further in view of Hoover. Firstly, claim 13 is in condition for allowance because it depends from allowable claim 10.

Claim 13 adds the further limitations of "a locked axle indicator; a master controller reverser position detector for producing a reverser position signal; and a logic device having the reverser position signal and the brake engaged signal as inputs and adapted to energize the locked axle indicator when the reverser is in a non-neutral position and the hand brake is in an engaged position." The Examiner points to Hoover as teaching a locked axle detector for monitoring speed sensors whenever the vehicle is moving at a speed less than a low threshold level. However, the combination of Hoover with Orschek and Hosaka fails to teach or to suggest all of the limitations of claim 13. In particular, the prior art combination fails to teach or to suggest a device for detecting the position of a rail vehicle hand brake including a logic device utilizing a reverser position signal and a brake engaged signal to energize a locked axle indicator when the reverser is in a non-neutral position and the hand brake is in an engaged position. These limitations of claim 13 allow the locked axle indicator to be used as a hand brake alarm, without the need for installing any new alarms on the locomotive. The mere fact that a locked axle indicator is known in Hoover does not make obvious the device of claim 13 that innovatively energizes the locked axle indicator in response to a novel combination of signals.

Claims 3-14 are believed to be in condition for allowance. Reconsideration of the application in light of the amendments and remarks contained herein is respectfully requested.

Respectfully submitted,

OFFICIAL

David G. Maire

David G. Maire
Reg. No. 34,865
Beusse Brownlee Bowdoin & Wolter, P.A.
390 North Orange Avenue
Suite 2500
Orlando, FL 32801
telephone: 407-926-7704
facsimile: 407-926-7720